Rectangular shaped capacitive sensors are the compact solution for your facilities. The rugged housing and high-quality components provide additional options for installation and detection. The 8 mm Q08 as well as the variable CP80 convince through easy mounting and short blind zones. The rectangular types thus simplify the assembly and enhance the operability of your systems.

**Features**
- Stable and resistant housings
- Large switching distances
- Excellent EMC properties
- Easy to mount
- Connector and cable versions

**Properties**

**Designs**
All designs available, from the flat 5.5 mm QF5.5 up to the big sized 80 x 40.5 x 80 mm CP80

**Switching distances**
5 mm versions for close-range detection, 50 mm versions for long ranges

**Materials**
Rugged and chemical resistant plastic and metal housings

**Electrical versions**
3-wire and 4-wire DC, as well as 2-wire AC and NAMUR devices, PNP and NPN switching; NO, NC contact or with antivalent switching output

**Electrical connections**
2 m cable PVC or PUR, male M8 x 1, Ø 8 mm and M12 x 1 or terminal chamber

**Special features**
Fine adjustment via potentiometer,

**Internet link**
Scan the QR code to access our products on the internet
QF5,5

General data

Connection 2m cable
Ambient temperature -25…+70 °C
Housing material PP
Dimensions 20.3 x 5.5 x 54 mm

Types and data – selection table

<table>
<thead>
<tr>
<th>Type</th>
<th>Operating voltage</th>
<th>Output</th>
<th>Switching distance</th>
<th>Approvals</th>
<th>Operating current [mA]</th>
<th>Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC10-QF5.5-AP6X2</td>
<td>10…30 VDC</td>
<td>PNP</td>
<td>10 mm, ≥</td>
<td>–</td>
<td>200, 10</td>
<td>Potentiometer</td>
</tr>
<tr>
<td>BC10-QF5.5-RP6X2</td>
<td>10…30 VDC</td>
<td>PNP</td>
<td>10 mm, ≥</td>
<td>–</td>
<td>200, 10</td>
<td>Potentiometer</td>
</tr>
<tr>
<td>BCS-QF5.5-Y1X/S250</td>
<td>8.2 VDC</td>
<td>NAMUR</td>
<td>5 mm, ≥</td>
<td>2 G, 1 D, SIL2</td>
<td>–</td>
<td>fixed</td>
</tr>
</tbody>
</table>

Many different types available, also as NPN version, see type code QF5.5

Q08

General data

Operating voltage 10…30 VDC
Housing material GD-Zn
Ambient temperature -25…+70 °C
Adjustment fixed
Switching distance 5 mm, ≥
Operating current [mA] 200, 10
Dimensions 20 x 8 x 32 mm

Types and data – selection table

<table>
<thead>
<tr>
<th>Type</th>
<th>Connection</th>
<th>Output</th>
<th>w</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCS-Q08-AP6X2-V1131/S250</td>
<td>male, Ø 8 mm</td>
<td>PNP</td>
<td>w064</td>
<td>d396</td>
</tr>
<tr>
<td>BCS-Q08-AP6X2/S250</td>
<td>2 m cable</td>
<td>PNP</td>
<td>w061</td>
<td>d397</td>
</tr>
<tr>
<td>BCS-Q08-RP6X2/S250</td>
<td>2 m cable</td>
<td>PNP</td>
<td>w062</td>
<td>d397</td>
</tr>
<tr>
<td>BCS-Q08-RP6X2-V1131/S250</td>
<td>male, Ø 8 mm</td>
<td>PNP</td>
<td>w066</td>
<td>d396</td>
</tr>
</tbody>
</table>

Many different types available, also as NPN version, see type code Q08
Q10

General data
Operating voltage 10…30 VDC
Housing material PBT
Ambient temperature -25…+70 °C
Adjustment fixed

Switching distance 8 mm,

Dimensions 25 x 10.8 x 42 mm

Types and data – selection table

<table>
<thead>
<tr>
<th>Type</th>
<th>Connection</th>
<th>Output</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC8-Q10-AP6X2/S250</td>
<td>2 m cable</td>
<td>PNP</td>
<td>w061 d398</td>
</tr>
<tr>
<td>BC8-Q10-RP6X2/S250</td>
<td>2 m cable</td>
<td>PNP</td>
<td>w062 d398</td>
</tr>
<tr>
<td>BC8-Q10-AP6X2-V1131/S250</td>
<td>male</td>
<td>PNP</td>
<td>w064 d399</td>
</tr>
<tr>
<td>BC8-Q10-RP6X2-V1131/S250</td>
<td>male</td>
<td>PNP</td>
<td>w066 d399</td>
</tr>
</tbody>
</table>

Many different types available, also as NPN version, see type code

Q14

General data
Operating voltage 10…65 VDC
Housing material PBT
Ambient temperature -25…+70 °C
Adjustment Potentiometer

Switching distance 10 mm,

Dimensions 30 x 14 x 55.5 mm

Types and data – selection table

<table>
<thead>
<tr>
<th>Type</th>
<th>Connection</th>
<th>Output</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC10-Q14-AP4X2</td>
<td>2 m cable</td>
<td>PNP</td>
<td>w061 d400</td>
</tr>
<tr>
<td>BC10-Q14-VP4X2</td>
<td>2 m cable</td>
<td>PNP</td>
<td>w067 d400</td>
</tr>
<tr>
<td>BC10-Q14-RP4X2</td>
<td>2 m cable</td>
<td>PNP</td>
<td>w062 d400</td>
</tr>
<tr>
<td>BC10-Q14-AP4X2-V1131</td>
<td>male, M8 x 1</td>
<td>PNP</td>
<td>w064 d -</td>
</tr>
</tbody>
</table>

Many different types available, also as NPN version, see type code
### Q20

#### General data
- **Switching distance**: 20 mm
- **Ambient temperature**: -25...+70 °C
- **Housing material**: PBT
- **Dimensions**: 40 x 20 x 68 mm

#### Types and data – selection table

<table>
<thead>
<tr>
<th>Type</th>
<th>Connection</th>
<th>Operating voltage</th>
<th>Output</th>
<th>Operating current [mA]</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC20-Q20-AP4X2-H1141</td>
<td>male, M12 x 1</td>
<td>10...65 VDC</td>
<td>PNP</td>
<td>200</td>
</tr>
<tr>
<td>BC20-Q20-AP4X2</td>
<td>2 m cable</td>
<td>10...65 VDC</td>
<td>PNP</td>
<td>200</td>
</tr>
<tr>
<td>BC20-Q20-RP4X2</td>
<td>2 m cable</td>
<td>10...65 VDC</td>
<td>PNP</td>
<td>200</td>
</tr>
<tr>
<td>BC20-Q20-VP4X2-H1141</td>
<td>male, M12 x 1</td>
<td>10...65 VDC</td>
<td>PNP</td>
<td>200</td>
</tr>
<tr>
<td>BC20-Q20-AZ3X2</td>
<td>2 m cable</td>
<td>20...250 VAC</td>
<td>PNP</td>
<td>200</td>
</tr>
<tr>
<td>BC20-Q20-RZ3X2</td>
<td>2 m cable</td>
<td>20...250 VAC</td>
<td>PNP</td>
<td>200</td>
</tr>
</tbody>
</table>

Many different types available, also as NPN version, see type code.

### CP40

#### General data
- **Switching distance**: 20 mm
- **Ambient temperature**: -25...+70 °C
- **Housing material**: PBT
- **Dimensions**: 40 x 40 x 114 mm

#### Types and data – selection table

<table>
<thead>
<tr>
<th>Type</th>
<th>Connection</th>
<th>Operating voltage</th>
<th>Output</th>
<th>Operating current [mA]</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC20-CP40-VP4X2</td>
<td>Terminal chamber</td>
<td>10...65 VDC</td>
<td>PNP</td>
<td>200</td>
</tr>
<tr>
<td>BC20-CP40-V1141</td>
<td>male, M12 x 1</td>
<td>10...65 VDC</td>
<td>PNP</td>
<td>200</td>
</tr>
<tr>
<td>BC20-CP40-FZ3X2</td>
<td>Terminal chamber</td>
<td>20...250 VAC</td>
<td>connection programmable</td>
<td>2-wire</td>
</tr>
</tbody>
</table>

Many different types available, also as NPN version, see type code.
Capacitive sensors
Rectangular designs

CP80

General data
Switching distance 50 mm
Ambient temperature -25...+70 °C
Adjustment Potentiometer

Housing material PBT
Dimensions 80 x 40.5 x 80 mm

Types and data – selection table

<table>
<thead>
<tr>
<th>Type</th>
<th>Connection</th>
<th>Operating voltage</th>
<th>Output</th>
<th>Operating current [mA]</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC50-CP80-VP4X2</td>
<td>Terminal chamber</td>
<td>10…65 VDC</td>
<td>PNP</td>
<td>200, Ø</td>
<td>w073 d406</td>
</tr>
<tr>
<td>NC50-CP80-VP4X2-H1141</td>
<td>male, M12 x 1</td>
<td>10…65 VDC</td>
<td>PNP</td>
<td>200, Ø</td>
<td>w069 d407</td>
</tr>
<tr>
<td>NC50-CP80-FZ3X2</td>
<td>Terminal chamber</td>
<td>20…250 VAC</td>
<td>2-wire</td>
<td>–</td>
<td>w074 d406</td>
</tr>
</tbody>
</table>

Many different types available, also as NPN version, see type code
Capacitive sensors
Cylindrical designs - Metal

Wiring diagrams on page 658
Dimension drawing on page 670
Accessories on page 560
Cylindrically shaped capacitive sensors feature high switching distances and are available in many different designs. M12, M18 and M30 chrome-plated threaded barrels are available with connection cable or male connection. Besides the usual reliability, capacitive sensors feature standard properties such as automatic wetting compensation, excellent EMC and ESD properties and more flexibility with respect to mounting.

**Properties**

- **Designs**
  - Threaded barrel M12 x 1, M18 x 1 and M30 x 1.5

- **Switching distances**
  - From 3 mm flush to 10 mm non-flush on all metals and non-metals

- **Materials**
  - Threaded barrels, chrome-plated brass

- **Electrical versions**
  - 2-wire AC, 3-wire and 4-wire DC, PNP or NPN switching; NO/NC contact as well as with antivalent switching output

- **Electrical connections**
  - 2 m connection cable or male M12 x 1

- **Special features**
  - Fine adjustment via potentiometer, protection class IP67

**Features**

- Excellent reliability
- Automatic wetting compensation
- Excellent EMC properties
- ESD immunity
- Mounting flexibility

**Internet link**
Scan the QR code to access our products on the internet
### M12

- **General data**
  - **Operating voltage**: 10…30 VDC
  - **Housing material**: CuZn, chrome-plated
  - **Ambient temperature**: -25…+70 °C
  - **Switching distance**: 200 mm, Ø 63.5 mm
  - **Operating current [mA]**: 200
  - **Adjustment**: Potentiometer

### Types and data – selection table

<table>
<thead>
<tr>
<th>Type</th>
<th>Connection</th>
<th>Output</th>
<th>Approvals</th>
<th>Dimensions</th>
<th>Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC3-M12-AP6X</td>
<td>2 m cable</td>
<td>PNP</td>
<td>–</td>
<td>Ø 12 x 63.5 mm</td>
<td>w061 d408</td>
</tr>
<tr>
<td>BC3-M12-AP6X</td>
<td>2 m cable</td>
<td>PNP</td>
<td>–</td>
<td>Ø 12 x 63.5 mm</td>
<td>w062 d408</td>
</tr>
<tr>
<td>BC3-M12-AP6X-H1141</td>
<td>male, M12 x 1</td>
<td>PNP</td>
<td>–</td>
<td>Ø 12 x 70 mm</td>
<td>w064 d409</td>
</tr>
<tr>
<td>BC3-M12-AP6X/S90/3GD</td>
<td>2 m cable</td>
<td>PNP</td>
<td>113 G, 113 D</td>
<td>Ø 12 x 63.5 mm</td>
<td>w061 d408</td>
</tr>
</tbody>
</table>

Many different types available, also as NPN version, see type code

### M18

- **General data**
  - **Switching distance**: 5 mm, Ø 83 mm
  - **Housing material**: CuZn, chrome-plated
  - **Ambient temperature**: -25…+70 °C

### Types and data – selection table

<table>
<thead>
<tr>
<th>Type</th>
<th>Connection</th>
<th>Operating voltage</th>
<th>Output</th>
<th>Operating current [mA]</th>
<th>Dimensions</th>
<th>Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC5-M18-AP4X-H1141/S250</td>
<td>male, M12 x 1</td>
<td>10…65 VDC</td>
<td>PNP</td>
<td>200, 113</td>
<td>Ø 18 x 74 mm Potentiometer</td>
<td>w061 d411</td>
</tr>
<tr>
<td>BC5-M18-AP4X-H1141/S250</td>
<td>male, M12 x 1</td>
<td>10…65 VDC</td>
<td>PNP</td>
<td>200, 113</td>
<td>Ø 18 x 74 mm Potentiometer</td>
<td>w062 d411</td>
</tr>
<tr>
<td>BC5-M18-AP4X</td>
<td>2 m cable</td>
<td>10…65 VDC</td>
<td>PNP</td>
<td>200, 113</td>
<td>Ø 18 x 74 mm Potentiometer</td>
<td>w061 d411</td>
</tr>
<tr>
<td>BC5-M18-AP4X</td>
<td>2 m cable</td>
<td>10…65 VDC</td>
<td>PNP</td>
<td>200, 113</td>
<td>Ø 18 x 74 mm Potentiometer</td>
<td>w062 d411</td>
</tr>
<tr>
<td>BC5-M18-AZ3X</td>
<td>2 m cable</td>
<td>20…250 VAC</td>
<td>2-wire</td>
<td>–</td>
<td>Ø 18 x 74 mm Potentiometer</td>
<td>w076 d411</td>
</tr>
<tr>
<td>BC5-M18-RZ3X</td>
<td>2 m cable</td>
<td>20…250 VAC</td>
<td>2-wire</td>
<td>–</td>
<td>Ø 18 x 74 mm Potentiometer</td>
<td>w077 d411</td>
</tr>
</tbody>
</table>

Many different types available, also as NPN version, see type code
### Capacitive sensors

#### Cylindrical designs - Metal

**M30**

![Image of M30 sensor](image)

#### General data

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switching distance</td>
<td>10 mm, (\Rightarrow)</td>
</tr>
<tr>
<td>Housing material</td>
<td>CuZn, chrome-plated</td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>-25…+70 °C</td>
</tr>
<tr>
<td>Adjustment</td>
<td>Potentiometer</td>
</tr>
</tbody>
</table>

#### Types and data – selection table

<table>
<thead>
<tr>
<th>Type</th>
<th>Connection</th>
<th>Operating voltage</th>
<th>Output</th>
<th>Operating current [mA]</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC10-M30K-VP4X-H1141</td>
<td>male, M12 x 1</td>
<td>10…65 VDC</td>
<td>PNP</td>
<td>200, (\Rightarrow)</td>
<td>Ø 30 x 60 mm</td>
</tr>
<tr>
<td>BC10-M30K-VP4X</td>
<td>2 m cable</td>
<td>10…65 VDC</td>
<td>PNP</td>
<td>200, (\Rightarrow)</td>
<td>Ø 30 x 62.5 mm</td>
</tr>
<tr>
<td>BC10-M30K-RZ3X</td>
<td>2 m cable</td>
<td>20…250 VAC</td>
<td>2-wire</td>
<td></td>
<td>Ø 30 x 62.5 mm</td>
</tr>
<tr>
<td>BC10-M30K-AZ3X</td>
<td>2 m cable</td>
<td>20…250 VAC</td>
<td>2-wire</td>
<td></td>
<td>Ø 30 x 62.5 mm</td>
</tr>
</tbody>
</table>

Many different types available, also as NPN version, see type code

---

Hans Turck GmbH & Co. KG • Tel. +49 208 49 52-0 • Fax +49 208 49 52-264
Capacitive sensors
Cylindrical designs - Plastic

Cylindrically shaped capacitive sensors feature high switching distances and are available in many different designs. The standard types come in plastic housings and sizes from Ø 12 mm to Ø 40 mm, with connection cable, male or terminal chamber.

Besides the usual reliability, capacitive sensors feature standard properties such as automatic wetting compensation, excellent EMC and ESD properties and more flexibility with respect to mounting.

**Properties**
- Excellent reliability
- Automatic wetting compensation
- Excellent EMC properties
- ESD immunity
- Mounting flexibility

**Designs**
Cylindrical designs M12 x 1, M18 x 1, M30 x 1.5, Ø 34 mm and Ø 40 mm

**Switching distances**
From 3 mm to 20 mm flush mountable on all metals and non-metals

**Electrical versions**
3-wire DC and 4-wire DC, as well as 2-wire AC and NAMUR devices, PNP and NPN switching; NO, NC contact or with antivalent switching output

**Materials**
Plastic housings PA, PBT, PVDF and ABS

**Electrical connections**
2 m cable, male M12 x 1 or terminal chamber

**Special features**
Fine adjustment via potentiometer, protection class IP68 or IP69K

**Internet link**
Scan the QR code to access our products on the internet
### Capacitive sensors

#### Cylindrical designs - Plastic

**S12**

![Image of S12 sensor](image)

**General data**
- **Connection**: 2 m cable
- **Operating voltage**: 10…30 VDC
- **Housing material**: PA12-GF30
- **Dimensions**: Ø 12 x 63 mm

**Types and data – selection table**

<table>
<thead>
<tr>
<th>Type</th>
<th>Output</th>
<th>Approvals</th>
<th>Ambient temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC3-S12-AP6X</td>
<td>PNP</td>
<td>–</td>
<td>-25…+70 °C</td>
</tr>
<tr>
<td>BC3-S12-RP6X</td>
<td>PNP</td>
<td>–</td>
<td>-25…+70 °C</td>
</tr>
<tr>
<td>BC3-S12-AP6X/S100</td>
<td>PNP</td>
<td>–</td>
<td>-25…+100 °C</td>
</tr>
<tr>
<td>BC3-S12-RP6X/S90/3GD</td>
<td>PNP</td>
<td>II 3 G</td>
<td>-25…+70 °C</td>
</tr>
</tbody>
</table>

Many different types available, also as NPN version, see type code

**S18**

![Image of S18 sensor](image)

**General data**
- **Housing material**: PA12-GF30
- **Ambient temperature**: -25…+70 °C

**Types and data – selection table**

<table>
<thead>
<tr>
<th>Type</th>
<th>Connection</th>
<th>Operating voltage</th>
<th>Output</th>
<th>Switching distance</th>
<th>Approvals</th>
<th>Operating current [mA]</th>
<th>Dimensions</th>
<th>Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC5-S18-AP4X-H1141/250</td>
<td>male, M12 x 1</td>
<td>10…65 VDC</td>
<td>PNP</td>
<td>5 mm</td>
<td>–</td>
<td>200, (5)</td>
<td>Ø 18 x 83 mm</td>
<td>fixed</td>
</tr>
<tr>
<td>BC5-S18-RP4X-H1141/250</td>
<td>male, M12 x 1</td>
<td>10…65 VDC</td>
<td>PNP</td>
<td>5 mm</td>
<td>–</td>
<td>200, (5)</td>
<td>Ø 18 x 83 mm</td>
<td>fixed</td>
</tr>
<tr>
<td>BC5-S18-AP4X</td>
<td>2 m cable</td>
<td>10…65 VDC</td>
<td>PNP</td>
<td>7.5 mm</td>
<td>–</td>
<td>200, (5)</td>
<td>Ø 18 x 74 mm</td>
<td>Potentiometer</td>
</tr>
<tr>
<td>BC5-S18-RP4X</td>
<td>2 m cable</td>
<td>10…65 VDC</td>
<td>PNP</td>
<td>7.5 mm</td>
<td>–</td>
<td>200, (5)</td>
<td>Ø 18 x 74 mm</td>
<td>Potentiometer</td>
</tr>
<tr>
<td>BC5-S18-AZ3X</td>
<td>2 m cable</td>
<td>20…250 VAC</td>
<td>PNP</td>
<td>7.5 mm</td>
<td>–</td>
<td>0 (8)</td>
<td>Ø 18 x 74 mm</td>
<td>Potentiometer</td>
</tr>
<tr>
<td>BC5-S18-RZ3X</td>
<td>2 m cable</td>
<td>20…250 VAC</td>
<td>PNP</td>
<td>7.5 mm</td>
<td>–</td>
<td>0 (8)</td>
<td>Ø 18 x 74 mm</td>
<td>Potentiometer</td>
</tr>
</tbody>
</table>

Table continues on the next page…

More information can be found online at [www.turck.com](http://www.turck.com).
### Capacitive sensors

Cylindrical designs - Plastic

---

#### Types and data – selection table

<table>
<thead>
<tr>
<th>Type</th>
<th>Connection</th>
<th>Operating voltage</th>
<th>Output</th>
<th>Approvals</th>
<th>Operating current [mA]</th>
<th>Dimensions</th>
<th>Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC5-S18-Y1X</td>
<td>2 m cable</td>
<td>8.2 VDC</td>
<td>NAMUR</td>
<td>-</td>
<td>-</td>
<td>Ø 18 x 74 mm</td>
<td>Potentiometer</td>
</tr>
</tbody>
</table>

Many different types available, also as NPN version, see type code

---

#### S185

![Image of S185 sensor]

**General data**
- Connection: 2 m cable
- Operating voltage: 10...65 VDC
- Output: PNP
- Switching distance: 7.5 mm
- Housing material: PVDF
- Dimensions: Ø 18 x 74.5 mm
- Adjustment: Potentiometer

**Types and data – selection table**

<table>
<thead>
<tr>
<th>Type</th>
<th>Ambient temperature</th>
<th>w061 d417</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC5-S185-AP4X</td>
<td>-25...+70 °C</td>
<td></td>
</tr>
<tr>
<td>BC5-S185-AP4X/S100</td>
<td>-25...+100 °C</td>
<td></td>
</tr>
</tbody>
</table>

Many different types available, also as NPN version, see type code

---

#### S30

![Image of S30 sensor]

**General data**
- Connection: 2 m cable
- Operating voltage: 20...250 VAC
- Output: 2-wire
- Switching distance: 15 mm
- Housing material: PA12-GF30
- Dimensions: Ø 30 x 62.5 mm
- Adjustment: Potentiometer

**Types and data – selection table**

<table>
<thead>
<tr>
<th>Type</th>
<th>Connection</th>
<th>Operating voltage</th>
<th>Output</th>
<th>Approvals</th>
<th>Operating current [mA]</th>
<th>Dimensions</th>
<th>w061 d419</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC10-S30-VP4X-H1141</td>
<td>male, M12 x 1</td>
<td>10...65 VDC</td>
<td>PNP</td>
<td>-</td>
<td>-</td>
<td>Ø 30 x 60 mm</td>
<td></td>
</tr>
<tr>
<td>BC10-S30-VP4X</td>
<td>2 m cable</td>
<td>10...65 VDC</td>
<td>PNP</td>
<td>-</td>
<td>-</td>
<td>Ø 30 x 62.5 mm</td>
<td></td>
</tr>
<tr>
<td>BC10-S30-A23X</td>
<td>2 m cable</td>
<td>20...250 VAC</td>
<td>2-wire</td>
<td>-</td>
<td>-</td>
<td>Ø 30 x 62.5 mm</td>
<td></td>
</tr>
<tr>
<td>BC10-S30-RZ3X</td>
<td>2 m cable</td>
<td>20...250 VAC</td>
<td>2-wire</td>
<td>-</td>
<td>-</td>
<td>Ø 30 x 62.5 mm</td>
<td></td>
</tr>
<tr>
<td>BC10-S30-Y1X</td>
<td>2 m cable</td>
<td>8.2 VDC</td>
<td>NAMUR</td>
<td>-</td>
<td>-</td>
<td>Ø 30 x 62.5 mm</td>
<td></td>
</tr>
</tbody>
</table>

Many different types available, also as NPN version, see type code
### Capacitive sensors

#### Cylindrical designs - Plastic

**P30SR**

![P30SR](image)

**General data**

- **Connection**: Terminal chamber
- **Housing material**: ABS
- **Dimensions**: Ø 30 x 115 mm
- **Switching distance**: 15 mm
- **Ambient temperature**: -25…+70 °C
- **Adjustment**: Potentiometer

**Types and data – selection table**

<table>
<thead>
<tr>
<th>Type</th>
<th>Operating voltage</th>
<th>Output</th>
<th>Approvals</th>
<th>Operating current [mA]</th>
<th>W</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC10-P30SR-VP4X2</td>
<td>10…65 VDC</td>
<td>PNP</td>
<td>–</td>
<td>200, Ex</td>
<td>W067</td>
<td>d420</td>
</tr>
<tr>
<td>BC10-P30SR-VP4X2/3GD</td>
<td>10…65 VDC</td>
<td>PNP</td>
<td>II 3 G</td>
<td>200, Ex</td>
<td>W073</td>
<td>d420</td>
</tr>
<tr>
<td>BC10-P30SR-FZ3X2</td>
<td>20…250 VAC</td>
<td>connection programmable, 2-wire</td>
<td>–</td>
<td>–</td>
<td>W074</td>
<td>d420</td>
</tr>
</tbody>
</table>

Many different types available, also as NPN version, see type code

**PT30**

![PT30](image)

**General data**

- **Connection**: 2 m cable
- **Output**: PNP
- **Housing material**: PVDF
- **Ambient temperature**: -25…+70 °C
- **Adjustment**: Potentiometer

**Types and data – selection table**

<table>
<thead>
<tr>
<th>Type</th>
<th>Operating voltage</th>
<th>Output</th>
<th>Approvals</th>
<th>Operating current [mA]</th>
<th>W</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC10-PT30-VP4X2</td>
<td>10…65 VDC</td>
<td>PNP</td>
<td>–</td>
<td>200, Ex</td>
<td>W067</td>
<td>d421</td>
</tr>
</tbody>
</table>

Many different types available, also as NPN version, see type code
### Capacitive sensors

#### Cylindrical designs - Plastic

**K34**

![K34 sensor](image)

**General data**
- **Switching distance**: 22.5 mm
- **Ambient temperature**: -25…+70 °C
- **Output**: PNP
- **Operating voltage**: 10…65 VDC
- **Operating current [mA]**: 200, 2-wire
- **Dimensions**: Ø 34 x 60 mm

**Types and data – selection table**

<table>
<thead>
<tr>
<th>Type</th>
<th>Connection</th>
<th>Operating voltage</th>
<th>Output</th>
<th>Operating current [mA]</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC15-K34-AP4X-H1141</td>
<td>male, M12 x 1</td>
<td>10…65 VDC</td>
<td>PNP</td>
<td>200</td>
<td>Ø 34 x 60 mm</td>
</tr>
<tr>
<td>BC15-K34-VP4X</td>
<td>2 m cable</td>
<td>10…65 VDC</td>
<td>PNP</td>
<td>200</td>
<td>Ø 34 x 80 mm</td>
</tr>
<tr>
<td>BC15-K34-AZ3X</td>
<td>2 m cable</td>
<td>20…250 VAC</td>
<td>2-wire</td>
<td></td>
<td>Ø 34 x 80 mm</td>
</tr>
<tr>
<td>BC15-K34-RZ3X</td>
<td>2 m cable</td>
<td>20…250 VAC</td>
<td>2-wire</td>
<td></td>
<td>Ø 34 x 80 mm</td>
</tr>
</tbody>
</table>

Many different types available, also as NPN version, see type code K34.

**K34SR**

![K34SR sensor](image)

**General data**
- **Switching distance**: 22.5 mm
- **Ambient temperature**: -25…+70 °C
- **Output**: PNP
- **Operating voltage**: 10…65 VDC
- **Operating current [mA]**: 200, 2-wire
- **Dimensions**: Ø 34 x 106 mm
- **Adjustment**: Potentiometer

**Connection**
- **Terminal chamber**

**Types and data – selection table**

<table>
<thead>
<tr>
<th>Type</th>
<th>Operating voltage</th>
<th>Output</th>
<th>Operating current [mA]</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC15-K34SR-VP4X2</td>
<td>10…65 VDC</td>
<td>PNP</td>
<td>200, 2-wire</td>
</tr>
<tr>
<td>BC15-K34SR-FZ3X2</td>
<td>20…250 VAC</td>
<td>connection programmable, 2-wire</td>
<td></td>
</tr>
</tbody>
</table>

Many different types available, also as NPN version, see type code K34SR.
### Capacitive sensors

#### Cylindrical designs - Plastic

### KT34

- **General data**
  - **Connection**: 2 m cable
  - **Output**: , PNP
  - **Housing material**: PVDF
  - **Ambient temperature**: -25...+70 °C
  - **Adjustment**: Potentiometer

- **Operating voltage**: 10...65 VDC
- **Switching distance**: 20 mm
- **Operating current [mA]**: 200
- **Dimensions**: Ø 34 x 80 mm

### Types and data – selection table

<table>
<thead>
<tr>
<th>Type</th>
<th>Connection</th>
<th>Output</th>
<th>w</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC20-KT34-VP4X2</td>
<td>2/uni00A0m cable</td>
<td>, PNP</td>
<td>w067</td>
<td>d425</td>
</tr>
</tbody>
</table>

Many different types available, also as NPN version, see type code

### K40SR

- **General data**
  - **Operating voltage**: 10...65 VDC
  - **Housing material**: ABS
  - **Ambient temperature**: -25...+70 °C
  - **Adjustment**: Potentiometer

- **Switching distance**: 30 mm
- **Operating current [mA]**: 200
- **Dimensions**: Ø 40 x 90 mm

### Types and data – selection table

<table>
<thead>
<tr>
<th>Type</th>
<th>Connection</th>
<th>Output</th>
<th>w</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC20-K40SR-VP4X2</td>
<td>Terminal chamber</td>
<td>, PNP</td>
<td>w073</td>
<td>d426</td>
</tr>
<tr>
<td>BC20-K40SR-VP4X2-H1141 male, M12 x 1</td>
<td>, NPN</td>
<td></td>
<td>w078</td>
<td>d427</td>
</tr>
</tbody>
</table>

Many different types available, also as NPN version, see type code

### K40WDTC

- **General data**
  - **Connection**: Terminal chamber, Removable cage clamp terminals
  - **Output**: , PNP
  - **Housing material**: Grilamid LV-30H FWA
  - **Ambient temperature**: -25...+70 °C
  - **Adjustment**: Potentiometer

- **Operating voltage**: 10...65 VDC
- **Switching distance**: 30 mm
- **Operating current [mA]**: 200
- **Dimensions**: Ø 40 x 91 mm

### Types and data – selection table

<table>
<thead>
<tr>
<th>Type</th>
<th>w</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC20-K40WDTC-VP4X2/5930</td>
<td>w073</td>
<td>d428</td>
</tr>
</tbody>
</table>
Thanks to the new switching technology in combination with optimized electrode and compensation features, the BCFs work reliably under difficult application conditions. Even conductive coatings are not a problem at all. To avoid HF crosstalk and other interferences, the potentiometer is located in a less sensitive area of the circuit, this applies to all capacitive TURCK sensors. Even applications that are subject to strong interferences do not require additional protective measures. All sensors of the BCF series are immune to radiated and conducted HF interference, burst as well as electrostatic discharge (ESD).

**Features**

- Automatic wetting compensation
- Increased EMI shielding (even with high frequency equipment)
- High protection class
- New close-up range suppression

**Properties**

- **Designs**
  - Cylindrical designs M18 x 1, M30 x 1.5 and Ø 34 mm and Ø 40 and rectangular

- **Switching distances**
  - 5 ... 15 mm, flush mounting

- **Materials**
  - PA or PBT housings

- **Electrical versions**
  - 2-wire AC and 3/4-wire DC, NPN or PNP switching, NC, NO or with antivalent switching output

- **Electrical connections**
  - 2 m cable PVC or PUR, male M12 x 1

- **Special features**
  - Close-up range suppression, EMC stability

**Internet link**

Scan the QR code to access our products on the internet
BCF – S18

General data
- Operating voltage: 10…65 VDC
- Switching distance: 5 mm
- Operating current [mA]: 200

Output
- PNP

Housing material
- PA12-GF30

Ambient temperature
- -25…+70 °C

Types and data – selection table

<table>
<thead>
<tr>
<th>Type</th>
<th>Connection</th>
<th>Dimensions</th>
<th>Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCF5-S18-AP4X</td>
<td>2 m cable</td>
<td>Ø 18 x 74 mm</td>
<td>Potentiometer</td>
</tr>
<tr>
<td>BCF5-S18-AP4X-H1141/S250</td>
<td>male, M12 x 1</td>
<td>Ø 18 x 83 mm</td>
<td>fixed</td>
</tr>
</tbody>
</table>

Many different types available, also as NPN version, see type code.

BCF – S30

General data
- Switching distance: 10 mm
- Housing material: PA12-GF30
- Ambient temperature: -25…+70 °C
- Adjustment: Potentiometer

Types and data – selection table

<table>
<thead>
<tr>
<th>Type</th>
<th>Connection</th>
<th>Operating voltage</th>
<th>Output</th>
<th>Operating current [mA]</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCF10-S30-VP4X</td>
<td>2 m cable</td>
<td>10…65 VDC</td>
<td>PNP</td>
<td>200</td>
<td>Ø 30 x 62.5 mm</td>
</tr>
<tr>
<td>BCF10-S30-VP4X-H1141</td>
<td>male, M12 x 1</td>
<td>10…65 VDC</td>
<td>PNP</td>
<td>200</td>
<td>Ø 30 x 60 mm</td>
</tr>
<tr>
<td>BCF10-S30-A23X</td>
<td>2 m cable</td>
<td>20…250 VAC</td>
<td>2-wire</td>
<td>–</td>
<td>Ø 30 x 62.5 mm</td>
</tr>
<tr>
<td>BCF10-S30-RZ3X</td>
<td>2 m cable</td>
<td>20…250 VAC</td>
<td>2-wire</td>
<td>–</td>
<td>Ø 30 x 62.5 mm</td>
</tr>
</tbody>
</table>

Many different types available, also as NPN version, see type code.
Capacitive sensors
BCF sensors with close-up range suppression

**BCF – K34**

![Image of BCF sensor]

<table>
<thead>
<tr>
<th>General data</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection</td>
<td>2 m cable</td>
</tr>
<tr>
<td>Switching distance</td>
<td>15 mm, &lt;-&gt;</td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>-25…+70 °C</td>
</tr>
<tr>
<td>Adjustment</td>
<td>Potentiometer</td>
</tr>
</tbody>
</table>

**Types and data – selection table**

<table>
<thead>
<tr>
<th>Type</th>
<th>Connection</th>
<th>Output Type</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCF15-K34-RZ3X</td>
<td>2-wire</td>
<td>w072 d423</td>
<td></td>
</tr>
<tr>
<td>BCF15-K34-AZ3X</td>
<td>2-wire</td>
<td>w071 d423</td>
<td></td>
</tr>
</tbody>
</table>

**BCF – Q20L60**

![Image of BCF sensor]

<table>
<thead>
<tr>
<th>General data</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating voltage</td>
<td>10…65 VDC</td>
</tr>
<tr>
<td>Switching distance</td>
<td>10 mm, &lt;-&gt;</td>
</tr>
<tr>
<td>Operating current [mA]</td>
<td>200</td>
</tr>
<tr>
<td>Dimensions</td>
<td>30 x 20 x 60 mm</td>
</tr>
<tr>
<td>Adjustment</td>
<td>Potentiometer</td>
</tr>
</tbody>
</table>

**Types and data – selection table**

<table>
<thead>
<tr>
<th>Type</th>
<th>Connection</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCF10-Q20L60-AP4X</td>
<td>2 m cable</td>
<td>w061 d429</td>
</tr>
<tr>
<td>BCF10-Q20L60-AP4X-H1141</td>
<td>male, M12 x 1</td>
<td>w064 d430</td>
</tr>
</tbody>
</table>
Capacitive sensors
BCC sensors with pre-attenuation protection
BCC sensors with pre-attenuation protection

The BCC sensors blank out all interferences during the monitoring process: They are EMC and ESD immune. A laterally mounted shield and an integrated processing unit inhibit pre-attenuation when mounted in metal flanges. The full switching distance is thus available.

Properties
- Automatic wetting compensation
- Excellent EMC properties
- High ESD immunity
- Detection of smallest pellets

Features
- Designs
  - Threaded barrel, M30 x 1.5

Electrical versions
- 3/4-wire, PNP switching, NO, NC or with antivalent switching output

Electrical connections
- 2 m connection cable or male M12 x 1

Switching distances
- 10 mm, flush mounting

Materials
- Housing quality plastic, PA or LCP

Special features
- ESD immune; lateral pre-attenuation protection

Internet link
Scan the QR code to access our products on the internet
**BCC – S30**

General data
- Operating voltage: 10...65 VDC
- Housing material: PA12-GF30
- Ambient temperature: -25...+70 °C
- Switching distance: 10 mm, ±
- Operating current [mA]: 200, √
- Adjustment: Potentiometer

Types and data – selection table

<table>
<thead>
<tr>
<th>Type</th>
<th>Connection</th>
<th>Output</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCC10-S30-RP4X</td>
<td>2 m cable</td>
<td>✓, PNP</td>
<td>Ø 30 x 62.5 mm</td>
</tr>
<tr>
<td>BCC10-S30-AP4X</td>
<td>2 m cable</td>
<td>✓, PNP</td>
<td>Ø 30 x 62.5 mm</td>
</tr>
<tr>
<td>BCC10-S30-AP4X-H1141</td>
<td>male, M12 x 1</td>
<td>✓, PNP</td>
<td>Ø 30 x 60 mm</td>
</tr>
<tr>
<td>BCC10-S30-VP4X-H1141</td>
<td>male, M12 x 1</td>
<td>✓, PNP</td>
<td>Ø 30 x 60 mm</td>
</tr>
</tbody>
</table>

**BCC – S30WD**

General data
- Connection: male, M12 x 1
- Output: ✓, PNP
- Housing material: LCP
- Ambient temperature: -25...+100 °C
- Adjustment: Potentiometer
- Operating voltage: 10...65 VDC
- Switching distance: 10 mm, ±
- Operating current [mA]: 200, √
- Dimensions: Ø 30 mm

Types and data – selection table

| Type          |  |
|---------------|  |
| BCC10-S30WD-AP4X-H1141 | w064 d431 |